UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/898,807	07/03/2001	John G. Apostolopoulos	10012167-1	3217

7590 11/12/2004	EXAMINER
HEWLETT-PACKARD COMPANY	LIEN, TAN

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ART UNIT	PAPER NUMBER
2141	

DATE MAILED: 11/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/898,807	APOSTOLOPOULOS ET AL.
	Examiner	Art Unit	
	Tan Lien	2141	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>03 July 2001</u>.
2a)☐ This action is **FINAL**.   2b)☒ This action is non-final.
3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-40</u> is/are pending in the application.
    4a) Of the above claim(s) _____ is/are withdrawn from consideration.
5)☐ Claim(s) _____ is/are allowed.
6)☒ Claim(s) <u>1-40</u> is/are rejected.
7)☒ Claim(s) <u>16 and 36</u> is/are objected to.
8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.
10)☒ The drawing(s) filed on <u>22 October 2002</u> is/are: a)☒ accepted or b)☐ objected to by the Examiner.
    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
    a)☐ All b)☐ Some * c)☐ None of:
      1.☐ Certified copies of the priority documents have been received.
      2.☐ Certified copies of the priority documents have been received in Application No. _____.
      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☒ Notice of References Cited (PTO-892) 6
2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.
4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____ .
5)☐ Notice of Informal Patent Application (PTO-152)
6)☐ Other: _____.

DETAILED ACTIONS

Claim Objections

Claim 16 is objected to because of the following informalities:

(a) On page 64, line 29, the period is mistakenly used instead of a semicolon.

Claim 36 is objected to because of the following informalities:

(a) Claim 36 is incorrectly depending on claim 35. It should depend on 34 as claim 11 is depending on 9, and 9 is similar to 34 as to 11 is similar to 36.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 5-7, 10, 16, 20, 21, 26, 30-32, and 35 are rejected under 35 U.S.C. 102(b) as being anticipated by Bushmitch (US Patent 5,928,331).

Claim(s) 1, 26: Bushmitch teaches a method for handing off to a second server, in a

streaming media system, a multiple description streaming session between a first server

and a client, said method comprising the steps of:

> a) selecting a second server to receive a handoff of a multiple description
>
> streaming media session (col. 2, lines 19-26; wherein the admission control unit
>
> select the request-for-streaming handoff of a multiple description streaming
>
> media session to the media push engine or second server) between a first server
>
> and a client (FIGURE 6; wherein the MC sends a request to start pushing stream
>
> X to AC), said multiple description streaming media session comprised of a first
>
> multiple description bitstream and a second multiple description bitstream (col. 3,
>
> lines 34-46 and FIGURE 2; wherein the X3 substream or component is the first
>
> multiple description bitstream and the X8 component is the second multiple
>
> description bitstream); and

> b) receiving at said second server, said second multiple description bitstream for
>
> streaming to said client (FIGURE 2; wherein the media push engine MPE
>
> receives the request to stream media components X8 or second multiple
>
> description bitstream to media client MC 16a).

Claim(s) 16: Bushmitch teaches a method for handing off to a second server, in a

streaming media system, a multiple description streaming session between a first server

and a client, said method comprising the steps of:

a) selecting a second server to receive a handoff of a multiple description

streaming media session (col. 2, lines 19-26; wherein the admission control unit

select the request-for-streaming handoff of a multiple description streaming

media session to the media push engine or second server) between a first server

and a client (FIGURE 6; wherein the MC sends a request to start pushing stream

X to AC), said multiple description streaming media session comprised of a first

multiple description bitstream and a second multiple description bitstream (col. 3,

lines 34-46 and FIGURE 2; wherein the X3 substream or component is the first

multiple description bitstream and the X8 component is the second multiple

description bitstream)

b) sending prefetch information to said second server (col. 6, lines 39-53; the

Admission Control Unit send the Open Stream request and multicast address

(prefetch information) to media push server before sending substream

components to the client);

c) receiving at said second server, said second multiple description bitstream for

streaming to said client (FIGURE 2; wherein the media push engine MPE

receives the request to stream media component X8 or second multiple

description bitstream to media client MC 16a);

d) sending said second multiple description bitstream from said second server to

said client (col. 7, lines 1-5 and FIGURE 2; wherein the X8 substream

component from media push server 12c (second server) is sent to the media

client 16a);

e) receiving, at said second server, said first multiple description bitstream

(FIGURE 2, wherein the media push server 12c (second server) receive the

request to stream media component X3 or first multiple description bitstream to

the media client MC 16a);

f) sending said first multiple description bitstream from said second server to said

client (FIGURE 2, wherein the media push server 12c (second server) sends the

first multiple description bitstream X3 to client 16a); and

g) dropping communication between said first server and said client (col. 10,

lines 4-7; It is also well-known to one of ordinary skill in the art at the time of the

invention to drop communication after the session has no more use to save

network resource).

Claim(s) 5, 20, 30: Bushmitch teaches the method of claims 1, 16, 26 wherein

said handoff is necessitated by a condition selected from the group comprising:

dynamic network conditions, dynamic server load, and client location (col. 2, lines

26-28).

Claim(s) 6, 31: Bushmitch teaches the method of claim 1, 26 further comprising the

step of:

after performing said step a), sending prefetch information to said second server

(col. 6, lines 39-53; the Admission Control Unit send the prefetch information or

Open Stream request and multicast address to media push server before

sending substream components to the client).

Claim(s) 7, 21, 32: Bushmitch teaches the method of claim 1,16, 26, further comprising

the step of:

after performing said step a), sending prefetch information from said first server

to said second server (col. 6, lines 39-53; the Admission Control Unit (first server)

send the prefetch information (Open Stream request and multicast address) to

media push server before sending substream components to the client).

Claim(s) 10, 35: Bushmitch teaches the method of claim 1, 26, further comprising the

step of:

c) sending said second multiple description bitstream from said second server to

said client (col. 7, lines 1-5 and FIGURE 2; wherein the X8 substream

component from media push server 12c (second server) is sent to the media

client 16a).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all

obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 2, 8-9, 11-15, 17, 22-25, 27, 33-34, and 36-40 are rejected under 35

U.S.C. 103(a) as being unpatentable over Bushmitch and further in view of

"Transmission of Multiple Description and Layered Video over an EGPRS Wireless

Network," by Amy R. Reibman et al, AT&T Labs Research, hereinafter referred to as

AT&T Research.

Claim(s) 2, 17, 27: Bushmitch teaches the method of claim 1, 16, 26, but fail to teach

said client is a mobile client.

AT&T Research, in an analogous art, teaches a mobile client in an EGPRS

wireless network requesting a streaming video application from a server (page

136, section 2, paragraph 1). It would have been obvious to one of ordinary skill

in the art at the time of the invention to modify Bushmitch's media client in the IP

network to include AT&T Research's mobile client in the EGPRS wireless

network, for the well-known advantage of flexibility and portability of wireless

applications.

Claim(s) 8, 22, 33: Bushmitch teaches the method of claims 1, 16, 26, but fails to teach

wherein steps b), c), b) respectively comprises the step of:

receiving, at said second server, said second multiple description bitstream from

said first server.

AT&T Research, in an analogous art, teaches video servers (first server)

connected to the Internet and mobile clients connected to an EGPRS wireless

network which is connected to the IP network via E-GSN mobility routers, and the

mobile client requesting a streaming video application from a video server (page

136, section 2, paragraph 1). It would have been obvious to one of ordinary skill

in the art at the time of the invention to combine Bushmitch's handing off the

client's session request to the media push server to stream component to the

client with AT&T Research's streaming of video data from the video server to the

mobile client, for the advantage of security in securing the logical pipe between

the node and the client (page 136, section 2, paragraph 2).

Claim(s) 9, 23, 34: Bushmitch teaches the method of claims 1, 16, 26, but fails to teach

wherein step b), c), b) respectively comprises the step of:

receiving, at said second server, said second multiple description bitstream from

said content source.

AT&T Research, in an analogous art, teaches video servers (content source)

connected to the Internet and mobile clients connected to an EGPRS wireless

network which is connected to the IP network via E-GSN mobility routers, and the

mobile client requesting a streaming video application from a first server (page

136, section 2, paragraph 1). It would have been obvious to one of ordinary skill

in the art at the time of the invention to combine Bushmitch's handing off the

client's session request to the media push server to stream component to the

client with AT&T Research's streaming of video data from the video server to the

mobile client, for the advantage of security in securing the logical pipe between

the node and the client (page 136, section 2, paragraph 2).

Claim(s) 11, 36: Bushmitch and AT&T Research teach the method of claim 9, 34

further comprising the step of:

> d) receiving, at said second server, said first multiple description bitstream
>
> (FIGURE 2, wherein the media push server 12c (second server) receive the
>
> request to stream media component X3 or first multiple description bitstream to
>
> the media client MC 16a).

Claim(s) 12, 37: Bushmitch and AT&T teach the method of claims 11, 36, but fail to

teach wherein step d) comprises the step of:

> receiving, at said second server, said first multiple description bitstream from said
>
> first server.

AT&T Research, in an analogous art, teaches video servers (first server)

connected to the Internet and mobile clients connected to an EGPRS wireless

network which is connected to the IP network via E-GSN mobility routers, and the

mobile client requesting a streaming video application from a first server and

receiving multiple description (first multiple description) from video server (page

136, section 2, paragraph 1 and page 137, section 4, paragraph 1). It would

have been obvious to one of ordinary skill in the art at the time of the invention to

combine Bushmitch's handing off the client's session request to the media push

server to stream component to the client with AT&T Research's streaming of

video data from the video server to the mobile client, for the advantage of

security in securing the logical pipe between the node and the client (page 136,

section 2, paragraph 2).

Claim(s) 24: Bushmitch teaches the method of claim 16, but fail to teach wherein step

e) comprises the step of:

receiving, at said second server, said first multiple description bitstream from said

first server.

AT&T Research, in an analogous art, teaches video servers (first server)

connected to the Internet and mobile clients connected to an EGPRS wireless

network which is connected to the IP network via E-GSN mobility routers, and the

mobile client requesting a streaming video application from a first server and

receiving multiple description (first multiple description) from video server (page

136, section 2, paragraph 1 and page 137, section 4, paragraph 1). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Bushmitch's handing off the client's session request to the media push server to stream component to the client with AT&T Research's streaming of video data from the video server to the mobile client, for the advantage of security in securing the logical pipe between the node and the client (page 136, section 2, paragraph 2).

Claim(s) 13, 38: Bushmitch and AT&T Research teach the method of claims 11, 36, but fails to teach wherein step d) comprises the step of:

receiving, at said second server, said first multiple description bitstream from said content source.

AT&T Research, in an analogous art, teaches video servers (content source) connected to the Internet and mobile clients connected to an EGPRS wireless network which is connected to the IP network via E-GSN mobility routers, and the mobile client requesting a streaming video application from a content source and receiving multiple description (first multiple description) from video server (page 136, section 2, paragraph 1 and page 137, section 4, paragraph 1). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Bushmitch's handing off the client's session request to the media push server to stream component to the client with AT&T Research's streaming of video data from the video server to the mobile client, for the advantage of

security in securing the logical pipe between the node and the client (page 136,

section 2, paragraph 2).

Claim(s) 25: Bushmitch teaches the method of claims16, but fails to teach wherein step

e) comprises the step of:

receiving, at said second server, said first multiple description bitstream from said

content source.

AT&T Research, in an analogous art, teaches video servers (content source)

connected to the Internet and mobile clients connected to an EGPRS wireless

network which is connected to the IP network via E-GSN mobility routers, and the

mobile client requesting a streaming video application from a content source and

receiving multiple description (first multiple description) from video server (page

136, section 2, paragraph 1 and page 137, section 4, paragraph 1). It would

have been obvious to one of ordinary skill in the art at the time of the invention to

combine Bushmitch's handing off the client's session request to the media push

server to stream component to the client with AT&T Research's streaming of

video data from the video server to the mobile client, for the advantage of

security in securing the logical pipe between the node and the client (page 136,

section 2, paragraph 2).

Claim(s) 14, 39: Bushmitch and AT&T Research teach the method of claim 11, 36

further comprising the step of:

> e) sending said first multiple description bitstream from said second server to
>
> said client (FIGURE 2 of Bushmitch, wherein the media push server 12c (second
>
> server) sends the first multiple description bitstream X3 to client 16a).

Claim(s) 15, 40: Bushmitch and AT&T Research teach the method of claim 14, 39

further comprising the step of:

> f) dropping communication between said first server and said client (col. 10, lines
>
> 4-7; It is also well-known to one of ordinary skill in the art at the time of the
>
> invention to drop communication after the session has no more use to save
>
> network resource).

Claims 3-4, 18-19, and 28-29 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Bushmitch, and further in view of AT&T Research and Vasudevan

(US Patent 6,539,221).

Claim(s) 3, 4, 18, 19, 28, 29: Bushmitch and AT&T Research teach the method of

claims 2, 3, 17, 18, 27, 28 respectively and Bushmitch teaches selecting of a media

push server or second server but fail to teach

> selecting of said second server is performed using mobility estimation provided
>
> by said mobile client.

Vasudevan, in an analogous art, teaches traffic estimation or estimation mobility to include a distribution of handover of session to new cell in a wireless network (Abstract Vasudevan). It would have been obvious to one of ordinary skill in the art at the time of the invention to combine Bushmitch's media push servers in an IP network and AT&T Research's mobile client in a wireless network connected to an IP network with Vasudevan's estimation mobility to determine wireless traffic, for the advantage of optimizing wireless network (col. 1, lines 50-60).

Conclusion

Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Tan Lien whose telephone number is (571) 272-3883. The examiner can normally be reached on Monday-Thursday from 8:30am to 6pm. The examiner can also be reached on alternate Fridays.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Rupal Dharia, can be reached at (571) 272-3880. The fax phone number for this Group is (703) 305-3718.
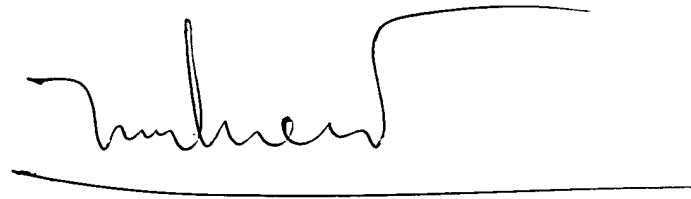
Communications via Internet e-mail regarding this application, other than those under 35 U.S.C. 132 or which otherwise require a signature, may be used by the applicant and should be addressed to [tan.lien@uspto.gov].

All Internet e-mail communications will be made of record in the application file. PTO employees do not engage in Internet communications where there exists a

possibility that sensitive information could be identified or exchanged unless the

record includes a properly signed express waiver of the confidentiality requirements

of 35 U.S.C. 122. This is more clearly set forth in the Interim Internet Usage Policy

published in the Official Gazette of the Patent and Trademark on February 25, 1997

at 1195 OG 89.

Any inquiry of a general nature or relating to the status of this application or

proceeding should be directed to the Group receptionist whose telephone number is

(703) 305-3900.

LE HIEN LUU
PRIMARY EXAMINER